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REMARKS/ARGUMENTS

Claims 1-18 are pending in this application. By this Amendment, Applicants AMEND claims 1, 5, and 15.

Applicants greatly appreciate the allowance of claims 1-4 and 10-14 by the Examiner.

The Examiner objected to claims 1 and 5 for allegedly containing minor informalities. Applicants note that although the Examiner indicated that claims 1, 5, 10 and 15 were objected to, only claims 1 and 5 were discussed in the description of the objections. Accordingly, Applicants have assumed that the Examiner intended to object to only claims 1 and 5. Applicants have amended claims 1 and 5 to correct the minor informalities noted by the Examiner. Accordingly, Applicants respectfully request reconsideration and withdrawal of the objection to claims 1 and 5.

Applicants have amended claims 15 to correct a minor informality contained therein.

Claims 5 was rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite. Claim 5 has been amended to correct the informalities noted by the Examiner. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 5 under 35 U.S.C. § 112, second paragraph.

Claims 5, 6, 8, 15, and 17 were rejected under 35 U.S.C. 102(e) as being anticipated by Fogal et al. (U.S. 5,323,060). Applicants respectfully submit that the U.S. Patent number of Fogal et al. is 5,323,060, not 6,313,998 as indicated by the Examiner. Claims 7 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Fogal et al. in view of Mandai et al. (U.S. 5,726,612). Claims 9 and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Fogal et al. in view of Applicants' Admitted Prior Art (AAPA). Applicants respectfully traverse the rejections of claims 5-9 and 15-18.

Claim 5 has been amended to recite:

"A module substrate mounting structure comprising:

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a motherboard having connecting pads disposed on a surface thereof; and

a plurality of module substrates each having connecting members attached to a surface thereof via connecting terminals disposed on each of said plurality of module substrates; wherein

said plurality of module substrates are stacked with a space therebetween on said motherboard, said connecting members of said plurality of module substrates are electrically connected to said connecting pads on said motherboard, a plurality of said connecting terminals are arranged along an edge portion of each of said plurality of module substrates, **said plurality of module substrates are stacked in a direction perpendicular to a surface of said motherboard and are sequentially offset from one another in the direction parallel to the surface of said motherboard**, said edge portions with said connecting terminals disposed thereon are aligned with one another in the direction perpendicular to a surface of said motherboard, and **said connecting pads connected to said connecting terminals arranged along the edge portion of each of said plurality of module substrates via said connecting members are arranged in the same row.**" (emphasis added)

Claim 15 has been amended to recite:

"A module substrate mounting structure comprising:

a motherboard having connecting pads disposed on a surface thereof; and

a plurality of module substrates each having connecting members attached to a surface thereof via connecting terminals disposed on each of said plurality of module substrates; wherein

said plurality of module substrates are stacked with a space therebetween on said motherboard, said connecting members of said plurality of module substrates are electrically connected to said connecting pads on said motherboard, a plurality of said connecting terminals are arranged along a pair of edge portions of each of said plurality of module substrates, and **said module substrates are stacked with the space therebetween on said motherboard so that the direction of arrangement of said connecting terminals of an upper module substrate of said plurality of module substrates is substantially perpendicular to the direction of arrangement of said connecting terminals of a lower module substrate of said plurality of module substrates.**" (emphasis added)

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Applicants' claim 5 recites the features of the plurality of module substrates "are sequentially offset from one another in the direction parallel to the surface of said motherboard" and "said connecting pads connected to said connecting terminals of said plurality of module substrates via said connecting members are arranged in the same row" and "said connecting pads connected to said connecting terminals arranged along the edge portion of each of said plurality of module substrates via said connecting members are arranged in the same row." Applicants' claim 15 recites the feature of "said module substrates are stacked with the space therebetween on said motherboard so that the direction of arrangement of said connecting terminals of an upper module substrate of said plurality of module substrates is substantially perpendicular to the direction of arrangement of said connecting terminals of a lower module substrate of said plurality of module substrates." With the improved features of claims 5 and 15, Applicants have been able to provide a module substrate mounting structure which allows a plurality of module substrates to be mounted on a motherboard with very high density (see, for example, the second full paragraph on page 2 of the originally filed Specification).

Applicants have amended claim 5 to recite the feature of "said connecting pads connected to said connecting terminals arranged along the edge portion of each of said plurality of module substrates via said connecting members are arranged in the same row."

Fogal et al. teaches in **Figs. 1-4** the connecting pads connected to the connecting terminals **44**, **50**, and **56** arranged along the edge portions of the plurality of module substrates **18**, **28**, and **54** are arranged in multiple rows, **NOT** arranged in a single row as recited in Applicants' claim 5. Fogal et al. clearly teaches that connecting terminals **44** arranged along one of the edge portions of module substrate **18** are arranged in a first row; connecting terminals **50** arranged along one of the edge portions of module substrate **28** are arranged in a second row; and connecting terminals **56** arranged along one of the edge portions of module substrate **56** are arranged in a third

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row. This arrangement is clearly illustrated in **Figs. 1 and 2** of Fogal et al. Thus, the connecting pads of Fogal et al. connected to the connecting terminals **44, 50, and 56** arranged along the edge portion of each of the module substrates **18, 28, and 54** must be arranged on the substrate **12** in three rows, **NOT** in a single row as recited in the present claimed invention.

Thus, contrary to the Examiner's allegations, Fogal et al. fails to teach or suggest the features of the plurality of module substrates "are sequentially offset from one another in the direction parallel to the surface of said motherboard" and "said connecting pads connected to said connecting terminals of said plurality of module substrates via said connecting members are arranged in the same row" as recited in Applicants' claim 5.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 5 under 35 U.S.C. 102(e) as being anticipated by Fogal et al.

The Examiner has alleged in the last paragraph on page 5 of the outstanding Office Action that **Figs. 2 and 3** of Fogal et al. teach the feature of "said module substrates are stacked with the space therebetween on said motherboard so that the direction of arrangement of said connecting terminals of an upper module substrate of said plurality of module substrates is substantially perpendicular to the direction of arrangement of said connecting terminals of a lower module substrate of said plurality of module substrates" (emphasis added) as recited in Applicants' claim 15. Applicants' respectfully disagree.

Fogal et al. teaches in **Figs. 1-6** that the direction of arrangement of the connecting terminals of the upper and lower module substrates are arranged in parallel, **NOT** arranged in perpendicular as recited in Applicants' claim 5. Thus, contrary to the Examiner's allegation, Fogal et al. fails to teach or suggest the feature of "said module substrates are stacked with the space therebetween on said motherboard so that the direction of arrangement of said connecting terminals of an upper module substrate of said plurality of module substrates is substantially perpendicular to the direction of

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arrangement of said connecting terminals of a lower module substrate of said plurality of module substrates" as recited in Applicants' claim 15.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 15 under 35 U.S.C. 102(e) as being anticipated by Fogal et al.

The Examiner has relied upon Mandai et al. and AAPA to allegedly cure various deficiencies in Fogal et al. However, neither Mandai et al. nor AAPA teaches or suggests the features of the plurality of module substrates "are sequentially offset from one another in the direction parallel to the surface of said motherboard" and "said connecting pads connected to said connecting terminals of said plurality of module substrates via said connecting members are arranged in the same row" as recited in Applicants' claim 5, or the feature of "said module substrates are stacked with the space therebetween on said motherboard so that the direction of arrangement of said connecting terminals of an upper module substrate of said plurality of module substrates is substantially perpendicular to the direction of arrangement of said connecting terminals of a lower module substrate of said plurality of module substrates" as recited in Applicants' claim 15.

Accordingly, Applicants respectfully submit that Fogal et al., Mandai et al., and AAPA, applied alone or in combination, fail to teach or suggest the unique combination and arrangement of elements recited in claims 5 and 15 of the present application. Claims 6-9 depend upon claim 5 and are therefore allowable for at least the reasons that claim 5 is allowable. Claims 16-18 depend upon claim 15 and are therefore allowable for at least the reasons that claim 15 is allowable. As noted above, the Examiner has allowed claims 1-4 and 10-14.

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

To the extent necessary, Applicants petition the Commissioner for a ONE-month extension of time, extending to January 16, 2004, the period for response to the Office

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The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

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